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BOTSWANA

UNDP assistance requested by the Government of Botswana for the period 1973-1976

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INTRODUCTION

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(a) **Geographic**

(i)	Location :	The Republic of Botswana is a land-locked country in Southern Africa between latitude 18° and 27° south, longitude 20° and 29° east. It is almost surrounded by Namibia, South Africa and Southern Rhodesia, but has a small border contact with Zambia.
(ii)	Climate :	Tropical and sub-tropical depending on the region. All areas are arid and semi-arid. Summer, the wetter season is hot although tempered at times by north-eastern breezes. Winters are very dry with wide diurnal temperature variations occasionally giving rise to frosts. Maximum summer temperatures are often in excess of 40°. Rainfall varies from under 250 mms with an 80% variability from the mean in the South-West to over 650 mms with a 25% variability from the mean in the North East.
(iii)	Area :	570,000 square kilometres (220,000 square miles). Capital city - Gaborone.

(b) **Population** 671,379 (1971 census)

(i)	Growth Rate :	3.08% (1971 census)
(ii)	Literacy/Educational Structure :	Literacy Less than 20% School population, (1971): 83,500 in 288 primary and 13 Secondary Schools.
(iii)	Population Structure :	Median age 16½

(v) Mining : At present the main mineral exported is diamonds, from the mine at Orapa which opened in 1971. The mining at Selebi-Pikwe of copper/nickel deposits is another important mining venture being developed, as is open-cast coal mining at Morupule.

(vi) Other Natural Resources : The Okavango area has a vast water resource. This area and the Chobe National Park attract some 4,000 tourists annually.

(vii) Industry : Manufacturing industries do not contribute significantly to Botswana's GDP. In 1968 manufacturing accounted for approximately 9% of GDP; 6% of the value added came from the Botswana Meat Commission (BMC) alone. According to the 1971 Employment Survey only approximately 2,100 persons out of a total of 31,700 in wage-employment are employed in manufacturing industries.

(vii) Foreign Trade : Exports - 33 million Rand (1971/72)*
Imports - 60 million Rand (1971/72)*

(ix) Government Finance :

	Actual	Revised Estimates	Estimates
	1970/71 (R)	1971/72 (R)	1972/73 (R)
Current Expenditure	15.8	19.8	23.5
Domestic Expenditure	11.7	16.7	22.9
Capital Expenditure	8.5	18.0	45.2

(c) Infrastructure

Air Services	:	Scheduled flights linking Gaborone with Lusaka and Johannesburg; Maun, Francistown and Selebi-Pikwe with Johannesburg.
Road	:	8,000 kilometres mainly in the east; Tarmac only in towns.
Railway	:	600 kilometres owned by Rhodesia Railways, paralleling the South-eastern border of the country.

(d) Economy

(i)	GDP	:	Approximately R50 million in 1969/70* (US $ 62 million)
(ii)	Annual Growth Rate	:	8%*

Government expenditure in the financial year 1971/72 was 25% up on 1970/71, while Domestic Revenue was up 43%. The level of Bank Deposits in March 1972 was 40% up on March 1971.

(iii)	Average per capita income:		R75 ($ 93)* per annum
(iv)	Agriculture	:	Cattle population - 2,000,000 approx. Offtake (1971) - 167,500

About 80% of cattle are grazed under traditional systems of management. However, grazing under modern management techniques does exist in certain parts of the country. Apart from limited areas adjacent to the South-East Border of the country arable agriculture is at or near the subsistence level. The principal crop grown is Sorghum with crop yields ranging from Zero to 20 bags per acre depending on rainfall. Irrigated agriculture is currently of no economic significance.

* These figures are subject to a considerable margin of error.

BOTSWANA

UNITED NATIONS DEVELOPMENT PROGRAMME

Country Programme

for

1973 - 1976

I BRIEF STATEMENT OF CURRENT OVERALL DEVELOPMENT OBJECTIVES AND PRIORITIES

1. In 1966 when Botswana achieved political independence the country was in a state of complete economic dependence. Only 3% of senior posts in the Civil Service were held by nationals of the country. The deficit in the 1965/66 recurrent budget of Rand 5.4 million (US Dollars 6.7 million and 28% of total income) was made up by a Grant-in-Aid from the United Kingdom. At Independence the United Kingdom (UK) was the only major donor of aid to Botswana. UNDP assistance was then a mere US $ 200,000 per annum.

2. Before Independence Botswana (or Bechuanaland, as it was then known) was an indirectly-ruled British Protectorate. The Union of South Africa Act, 1910 provided inter alia that Botswana (and Lesotho and Swaziland) could, at their own choice and time, opt to join the Union. The exercise of this option seemed at least conceivable until retrogressive political developments in South Africa ruled it out, and it was recognised that Independence for all three countries was both inevitable and necessary. Since the late 1950's the need to give the three territories at least the basic minimal infrastructure for Independence was seen, accepted and implemented by the Protecting Power. Whilst this radical change in direction resulted in a great expansion of resources, it came historically too late to make good the serious shortage of trained manpower and lack of physical infrastructure that existed at Independence.

3. When the situation today is compared with that of 1966, an impressive picture of past achievements and exciting potential emerges. The average per capita income has increased from an estimated R45 to approximately R75. 42% of senior and middle-level civil servants are now citizens. (However in 1970 only 6% of the technical and professional positions were held by citizens). Enrolment in secondary schools has increased 156% in five years. The country is no longer dependent on Grants-in-Aid from the United Kingdom to balance the recurrent budget. An impressive start has been made in the development of the country's mineral resources. All this has been achieved in a country which is land-locked, not only in the geographical sense, but locked in by minority-ruled states practising racial discrimination.

4. In spite of the impressive start that has been made, the burden of the problems ahead was emphasised by the United Nations General Assembly which identified Botswana as one of the 25 least developed amongst the developing nations. While the GDP in 1969/70 is estimated at R50 million, there is still a very wide gap between average urban and rural incomes. More than 40% of the 7 - 14 age-group do not attend school. The great majority of the population are still dependent on subsistence agriculture for their livelihood and, until recently, livestock exports made up 75% of the value of all exports from Botswana. However the growing pressure on the fragile semi-arid environment calls for an urgent review of land use practices.

5. Each year 30,000 - 60,000 workers have to seek jobs in South Africa. Combined with an estimated present population growth of about 3% per annum, this problem, with its serious sociological and political implications, will remain acute until well into the next century unless a significant change in the availability of jobs and in the birth rate is achieved through the Government's policies.

6. Botswana has had development plans since before Independence. In September 1970, the Government published a new plan for the period 1970 - 1975. According to the plan the Government is to spend 95 million rand on development projects over the five year period, or, on the average, 19 million rand per year. Of the total, 43% is to be spent on infrastructure for the Shashe Mining

Complex, another 22% for public works (mainly roads and houses), agriculture and education will receive 5% each and water development another 5%. The remaining 20% will be spent on basic Government operation, particularly in executive Ministries where severe shortages of professional and technical personnel have hampered the implementation of development plans.

7. The plan is under constant review and every two to three years a new plan is issued setting out the extent of implementation. The next plan, covering the period 1973 - 1977, is expected to be published in mid 1973.

OBJECTIVES AND PRIORITIES

8. The objectives and priorities in regard to the economic and social development of Botswana as set out in the 1970 - 1975 Development Plan are to:-

a) obtain the festest possible means of raising the living standards of the inhabitants of Botswana;
b) achieve budgetary self-sufficiency in the shortest possible time;
c) maximise the number of new job opportunities;
d) promote an equitable distribution of income through rural development.

The second of these objectives has now been achieved. This success has led to increasing attention being given to the other objectives, in particular those in the field of job creation and especially rural development.

9. The Government's Development strategy places special emphasis on manpower development, the development of water resources, the development and conservation of natural resources, the development of physical communication, and the development of agriculture and the revised Development Plan lays special stress on rural development in general.

10. The Government of Botswana has been endeavouring to diversify its sources of assistance. While the UK is still the largest donor, several other countries are now also emerging as major contributors to Botswana's development. Sweden, Canada, the United States and Denmark have become major bilateral donors. Of the United Nations (UN) family, the World Food Programme, the World Bank group and the United Nations Fund for Population Activities (UNFPA) are all now major multi-lateral sources of aid. Several African countries have also begun to give bilateral aid to Botswana. Zambia is providing fellowships to Batswana, and Nigeria and Tanzania are providing Technical Assistance personnel.

11. A significant input in key sectors is made by UNDP-funded sub-regional, regional and inter-regional projects. The advice of inter-regional advisers in the field of mineral resources has been invaluable. Major Food and Agriculture Organization (FAO) and International Telecommunication Union (ITU) Regional Projects in the spheres of animal production and telecommunications have been of considerable assistance, and ongoing sub-regional projects involving science teaching training, the University of Botswana, Lesotho and Swaziland (UBLS) Vice-Chancellor and telecommunications training are highly appreciated - not least because of their contribution to cooperation between the three countries of Botswana, Lesotho and Swaziland.

12. Also significant is the assistance offered by non-governmental organisation among which the inputs of The Oxford Committee for Famine Relief (OXFAM), the Freedom From Hunger Campaigns of the United Kingdom and Canada, the Mennonite Committee and the Ford Foundation are noteworthy. In all, some eight non-governmental organisations are providing significant quantities of aid in the form of personnel, grants or soft loans to Botswana.

13. The expected financial inputs to Botswana's Development Programme from multi-lateral sources are summarised in Table I.

TABLE I

ESTIMATED TECHNICAL ASSISTANCE RESOURCES FOR THE PROGRAMME PERIOD

In Million US $

Source	Amount					
	Total	1972	1973	1974	1975	1976
Bilateral Programmes	48.761	17.417	18.334	1.263	9.710	2.037
Voluntary and Relief Agencies	1.500	.300	.300	.300	.300	.300
Multilateral Programmes other than UNDP and the UN organisations (including World Bank group)	52.225	23.112	18.522	5.464	4.035	1.092
UN Organisations and Regular Programmes						
UNOTC	.168	.048	.030	.030	.030	.030
ECA	.140	.028	.028	.028	.028	.028
UNHCR	.080	.016	.016	.016	.016	.016
UNESCO	-	-	-	-	-	-
UNICEF	.376	.030	.046	.100	.100	.100
WHO	.270	.075	.075	.050	.035	.035
UNFPA	.351	.001	.050	.100	.100	.100
UNIDO	.050	.010	.010	.010	.010	.010
UNCTAD	-	-	-	-	-	-
FAO	.200	.040	.040	.040	.040	.040
Sub-Total	104.121	41.077	37.451	7.401	14.404	3.788
UNDP [1]	5.911	1.103	1.571	1.634	1.112	.491
Grand Total	110.032	42.180	39.022	9.035	15.516	4.279

1. This amount is based on the Indicative Planning Figure approved by the UNDP Governing Council for the period 1972 - 1976.

II DESCRIPTION OF SECTORAL NEEDS PROPOSED TO BE MET WITH UNDP ASSISTANCE

14. The strategy chosen for the UNDP Country Programme 1973 - 1976 has been determined both in the light of past experience in Botswana, and with close reference to the Government's Plans and Policies.

This involves:-

a) Support to the Government's Rural Development Policies by continuing to support Co-operatives and Agricultural Development, and by increasing the UNDP input in rural development policy formulation and social services

b) Assistance in Job Creation by providing expertise in the fields of Commerce, Small-scale industries, Employment Services, Youth Affairs and Community Development.

c) Continued supply of Senior Technical and Professional Personnel on OPAS terms. 19 OPAS personnel will serve in Botswana during this period. They will nearly all occupy very senior posts, in such fields as Statistics, Town Planning, Health Education, Meteorology, Commerce and Industry, Land Utilisation, and Minerals Development. The Government attaches considerable value to the OPAS system for several reasons. An OPAS expert is clearly seen to be a Government Officer with undivided loyalties. Multilateral recruitment is advantageous both because of the greater range of candidates available, and because many of the OPAS posts are politically sensitive. During recent years Government has been extremely well served by UNDP/OPAS officers. Not only have they often been of very high calibre, but in two or three Government Departments OPAS officers have initiated and directed training programmes which have made an outstanding contribution to the achievement of Government's localisation policies.

d) Provision of Large-Scale Projects in cases where a closely-knit team approach to a key problem is expected from staff integrated into a Government Department.

e) Strengthening of the Programme with a Flexible Fellowship Component which will allow localisation programmes for OPAS posts to be conducted with maximum ease.

15. There has, thus, recently been a significant shift in both Government's development priorities and in the structure of UNDP assistance. These shifts are reflected in this Country Programme. Government's initial priorities, as determined by the Ministry of Finance and Development Planning, and expressed in the Government's Development Plans, were primarily economic - acceleration of the rate of economic growth and increasing Government's Domestic Revenue. These initial objectives have been attained, and Government's attention is now being increasingly directed to social policies - increased employment opportunities and rural development in particular. UNDP's aid is being redirected simultaneously to confront the main constraints to Botswana's development in the following sectors.

A. INFRASTRUCTURE

16. Since obtaining Independence, Botswana has been very conscious of the need to plan development with great care. The country has seen the need for a very strong basic planning unit and, with bilateral and multi-lateral assistance, has steadily built up the basic infrastructure and institutional support that are required. The Ministry of Finance and Development Planning, established in 1970 following the amalgamation of the Ministries of Finance and of Development Planning, is responsible for the general supervision of the development budget, a task which is facilitated by the Ministry's control of expenditure. Within the Ministry there is a Division of Financial Affairs, primarily concerned with financial administration, and a Division of Economic Affairs, which is responsible for planning and providing economic advice to Government Departments.

17. This Ministry plays the central roleof directly supervising the two main present and future sources of national revenue, as both the Departments of Customs and Excise and the Shashe Project Management Unit are parts of the Ministry. A team of seventeen Economists and Planning Officers in the Division of Economic Affairs is continually involved in both the day-to-day administration and the long-term planning of most sectors of the Botswana economy.

18. Planning machinery also exists at Local Government level, through District Development Committees. The Councils at district level have their own Planning Committees, which examine and co-ordinate the proposals of village development committees. The latter constitute the last link in a planning system which emphasises participation of the village population. This body identifies local projects and submits them to the councils' planning committees for examination. Projects which are approved are incorporated into the District's Development Plan and subsequently integrated into the National Development Plan.

19. In recent years the United Kingdom and the Ford Foundation have given considerable assistance in the fields of economic planning and advice, while the UNDP has given strong support to the Central Statistics office, which is also part of the Ministry of Finance and Development Planning.

20. By far the largest Development Project in the 1970 - 75 National Development Plan is the Shashe Project. Under this project a mine is being established at Selebi-Pikwe which is expected to commence commercial production of copper/nickel matte in 1973. It is anticipated that initially some 2 million tons of ore will be mined annually.

21. In financial year 1971/72 alone this project absorbed 59% of all Development Expenditure. The main finance for the physical infrastructure for the Shashe Project required before mining can start at Selebi-Pikwe, was raised following a UNDP financed "Pre-Investment Survey of Utilities for Mining Development". At least US £200 million is being invested in this project from private and public sources, including an International Bank for Reconstruction and Development (IBRD) loan of US £32 million, a loan from the Canadian Government of US £30 million and a loan from the United States Agency for International Development (USAID) of US £6.5 million. These loans are being used to provide a township, roads, railways, a dam and water supply and a Power Station in the Selebi-Pikwe area.

22. This important investment in Physical Infrastructure in one area naturally dominates the picture of development in this sector, but it should not be allowed to overshadow the impressive progress that is being made throughout the country.

23. Within the transport sector the road network has been the major focus of attention. The construction of all-weather roads has been aided by loans from the International Development Association (IDA), the UK, the Swedish International Development Authority (SIDA), and USAID. Rail and air services, however, both face considerable problems. The railway is geared to the needs of Southern Rhodesia and South Africa.

Air services have had a chequered history, and at present, with the exception of a once-weekly link with Lusaka, all scheduled services are run by companies based in South Africa.

24. In the Urban Infrastructure sector considerable progress has been made in Planning and the provision of Utilities. Physical Planning has been allocated a relatively inferior position until recently, but is expected to shortly become the responsibility of a separate Town and Country Planning Department. This Department will initially depend to a large extent on assistance from both UNDP and bilateral sources, including the UK and Peace Corps. It will play a vital role in a field which has been neglected in the past. It is Government's policy to transfer responsibility for the provision of Utilities (Power, Water and Housing) in urban areas to para-statal bodies. The Botswana Housing Corporation has recently taken up its statutory responsibilities, and in the immediate future it faces the problem of a critical housing shortage in most urban and semi-urban areas. It is, however, benefitting from major loans from the Commonwealth Development Corporation, and a UNDP loan to assist in the construction of 25 houses for UNDP experts has been negotiated.

25. The Water Utilities Corporation (WUC) was established in 1970. As it is expected to take over the management of the Shashe (Selebi-Pikwe) water supplies in 1973, as well as the supplies for Gaborone and Lobatse, it is essential that this Corporation be rapidly developed.

26. Major mining companies and corporations involved in the International trade, such as the Botswana Meat Commission (BMC), require first-class telecommunications links with overseas markets. The Government has therefore ensured that adequate resources have been channelled into this sector. Loans and Technical Assistance have been provided by the UK, which has also recently financed a major six-month consultancy into the reorganisation and development of the Department of Posts and Telecommunications. Botswana has also benefitted from

participation in two UNDP/ITU regional and sub-regional projects. Extensive surveys were conducted in Botswana as part of the Pan-African Telecommunications Network Pre-Investment Survey. Botswana is also participating in the sub-regional Multi-National Posts and Telecommunications Training project, and an expert working under this project has recently begun work with the Department of Posts and Telecommunications.

Ongoing and Approved Projects

Director of Meteorological Services (OPAS) (BOT/68/009)

27. This post has been supported by UNDP continuously since 1965. The expert has established an efficient and effective Meteorological Service. A carefully planned training programme has been implemented, and nine ongoing or new fellowships in Meteorology will be funded from the Fellowship Blanket during the programming period (see paragraph 92). This training programme is expected to culminate in the localisation of the post of Director of Meteorological Services at the end of 1975.

- UNDP has been requested to provide US $75,000 during the programming period for 36 months of OPAS services. The Government counterpart contribution during the three years 1973 - 1975 will be R40,000.

Agricultural Statistician (OPAS) (BOT/68/010)

28. This project commenced in 1966, and has been in continuous operation since that date. The expert works directly under the Government Statistician (paragraph 29 below), and is particularly responsible for the annual Agricultural and Freehold Farm surveys. The work done by the experts under this project has been consistently valuable, and a counterpart has been identified who is expected to take over full responsibility in mid-1975.

- UNDP has been requested to contribute US $67,000 to this project during the first two and a half

years of the programming period, while the Government is expected to contribute R10,000.

Government Statistician (OPAS) (BOT/70/005)

29. There is a continuing need for reliable and comprehensive statistics in Botswana. The Government Statistician heads a Department which provides statistics relating to agriculture, education, industry, trade, employment, GDP, etc. The present expert has been in post since 1971, and has achieved very significant results in calculating Botswana's share of the revenue from the Southern African Customs Union. An appropriate conclusion to this post is anticipated by mid-1974, when it is hoped that the expert's counterpart will be fully trained to take over the post.

- UNDP has been requested to provide the continued services of an expert who will head the Central Statistics Department and will be responsible for all statistical analysis in Botswana. UNDP's contribution will be US $35,000 for 18 months of OPAS services and the Government's counterpart contribution is estimated at R8,000 during this period.

Systems Analyst (BOT/70/005)

30. The Government of Botswana is at present installing a computer which will considerably ease the pressure on the burden of the Central Statistics Office. The services of a Systems Analyst and one Associate Expert Programmer/Analyst have already been obtained, and a second Associate Expert is requested. The Systems Analyst and the first Associate Expert are now working under the Government Statistician on the data-processing requirements of the Import and Export Forms, which are vital to the Southern African Customs Union.

- UNDP has been requested to provide six man-months of expert services in Systems Analysis, which will involve expenditure of US $8,000 during the programming period.

Senior Town Planner (OPAS) (BOT/71/003)

31. The post of Senior Town Planner (OPAS) in the Government's Department of Surveys and Lands has been in existence since 1970. This post was originally financed under the United Nations Regular Programme. The initial experience of this project was discouraging, but it now appears clear that the Government is attaching increased importance to Physical Planning, and that the present expert's services are being highly valued. An Associate Expert is working with the Town Planner, and a second Associate Expert and four UN Volunteers are requested to work with the planned Department of Town and Country Planning.

- UNDP has been requested to provide US $92,000 during the programming period for 48 months of OPAS services, while the Government will contribute R20,000.

Consultant in National Accounts (BOT/72/006)

32. The National Accounts for Botswana, covering the financial years 1968/69 were only published in January 1972. It is essential that more up-to-date National Accounts should be available, and a special effort has been made to calculate the 1971/72 National Accounts to tie in with the 1971 Population Census, and in time to be of use in the preparation of the 1973 - 1978 National Development Plan. The UNDP was originally asked to recruit a Consultant to start in June 1972, but, regrettably, there have been serious recruitment delays. The Consultant is, however, expected to be in Botswana by the beginning of 1973, and it is still hoped that the work may be completed in time to meet the original project aims.

- UNDP is requested to provide US $7,500 for three man-months in 1973, while the Government will contribute R150 to counterpart costs.

Chief Executive, Water Utilities Corporation (OPAS) (BOT/72/012)

33. UNDP has given Botswana considerable assistance in the Water Resources sector. The large-scale project "Surveys and Training for the Development of Water Resources and Agricultural Production" (BOT/67/501) made a major contribution to the understanding of water resources, while the Director of Water Affairs (OPAS) was highly successful in supervising all aspects of water use between 1969 and 1972. The Government is now dividing responsibility for water affairs between a para-statal body, the Water Utilities Corporation (WUC) and the Government Department of Water Affairs. SIDA is providing considerable assistance in this sector, with particular emphasis on the improvement of rural water supplies and the staffing of the Government Department of Water Affairs. UNDP is requested to recruit a Chief Executive for WUC, who will be expected to collaborate closely with both the Shashe Project Management Unit and the Government Department of Water Affairs while establishing and directing this Para-statal Corporation.

- UNDP has been requested to provide US $96,000 during the four years of the Country Programme, while the Government will provide R29,000.

UBLS Statistical Training (BOT/72/018)

34. The effectiveness of the Statistical Training Programme has already been referred to in paragraph 29. Three fellows will be continuing ongoing fellowship courses in Ghana and Tanzania, financed from the Fellowship Blanket (see paragraph 92) during the programming period, while two others are on UN fellowships at Makerere University, Uganda. In order to provide adequate training facilities more locally, the Governments of Botswana, Lesotho and Swaziland have agreed to establish a regional Statistics Training Programme, based at UBLS. It is expected that this Programme will be financed from regional funds after mid-1973, but the three Governments have agreed to finance the preparatory activities from their respective IPFs.

UNDP contribution during 1973 will be US $9,000 while the Government counterpart contribution will be R3,000.

New Projects

Provision of Senior Consultants (BOT/72/011)

35. The Ministry of Finance and Development Planning makes frequent use of Senior Consultants from UN Agencies, and places a high value on their advice and availability. Such consultancies often cost nothing against the IPF. Advice has been recently available, for example, from the International Labour Office (ILO) Regional Adviser for Africa on Management Development, the UN Inter-regional Adviser on Mineral Resources Development, the FAO/Industry Cooperative Programme Meat Development Group, the World Health Organization (WHO) Smallpox Eradication Programme, and the International Civil Aviation Organization (ICAO) Air Transport Economist. It is, however, often necessary to make funds available at short notice from the IPF to fund Consultancies that are urgently required. Recent examples have been the FAO Consultancy on Tsetse Control and the UN Consultancies on Stores Management and National Accounts. The Government is therefore requesting that funds be set aside during the programming period for such consultancies. One consultancy, in Telecommunications Tariffs and Rates, has already been identified for funding from this allocation, and further consultancies in Labour Legislation and Trade Development are likely to be requested.

- UNDP is requested to provide US $40,000 for sixteen man-months of Consultant Services. The Government will make R8,000 available for counterpart costs.

Transport Secretary (OPAS) (BOT/72/027)

36. This post is a newly created senior position in the Ministry of Works and Communications. The Transport Secretary will be expected to implement Government legislation on Transport Licensing as Head of the Transport Control Division. He will advise the Transport Licensing Board on the issuing of licences to transport carriers and on the subsequent monitoring of all licensed carriers. He will be indirectly interested in all aid projects involving roads and the setting up of Transport Companies in Botswana.

- UNDP is requested to provide fifteen man-months of OPAS services at a cost of US $30,000. The Government counterpart contribution will be R6,000.

B. RURAL DEVELOPMENT AND AGRICULTURE

37. The way of life in rural Botswana has changed little in the last 50 years. The sociological position has been studied and described by the UNDP/FAO Projects, "Surveys and Training for the Development of Water Resources and Agricultural Production" (BOT/67/501) and "Rural Sociology" (BOT/71/014). Briefly, the population is based on a series of large central villages. These villages are surrounded by "lands" or areas of cultivation. Beyond these "lands" stretching out into the desert, are the "cattle posts". The siting of the villages and cattle posts are determined by the availability of water. The rivers of Eastern Botswana, where the bulk of the population is situated, seldom flow. Rainfall is sporadic but intense for short periods of time. The rivers are choked with sand and act as reservoirs as the water can be extracted from the sand throughout the year.

38. Only 7% of the area of Botswana is considered suitable for arable agriculture. The uncertain rainfall results in any cash investment in arable agriculture being highly speculative, as crop yields fluctuate widely. Furthermore, although the ratio of cattle to people is approximately 2.3 to 1, some 13% of the rural population possess no cattle and no lands and a further 31% have land holdings but no cattle. At the other end of the scale 4% of the rural population own 30% of the cattle.

39. With the growth of the population, pressure on the land is increasing. Arable areas are becoming exhausted while the pressure of more cattle and the tradition of open ranges are leading to a degradation of the range. It is frequently explained that a Motswana will have three homes; in his village, on the lands and at the cattle post. The family will move to the lands at ploughing and harvest times, and will return to the village during the long dry winter. Some members of the family will be at the cattle post looking after the cattle through the wetter summer period. When the rains cease the cattle are brought into the lands where they are wintered on harvest residues.

40. Water is only for human consumption and for cattle. Traditional agriculture is strictly dry land farming, mainly of sorghum with some interplanted cucurbits. Small areas of maize and occasionally a cash crop like cotton are grown.

41. In this situation, it is not surprising that some 30% of the labour force have to seek employment outside Botswana's borders in the Republic of South Africa. It is not surprising either that serious food shortages and famine conditions occur regularly. The World Food Programme has done much to alleviate suffering, and between 1966 and 1971 over 25 million dollars were provided to Botswana under two WFP projects.

42. The Government, in a paper published in March 1972, has identified four main aims in its programme for rural development:

"1. To increase sustained production from the land and from wildlife through research, co-ordinated extension work and conservation planning leading to the introduction of correct land use and management practices.

2. To improve marketing and credit facilities in the rural areas.

3. To create new employment opportunities wherever feasible and thereby reduce the numbers at present without any means of support, in particular to promote industries, services and crafts in rural areas.

4. To improve social services in the rural areas (water supplies, education, medical and welfare services, etc.) leading to healthier, smaller, better educated, better fed families."

43. In agricultural production specifically, the two main objectives identified are:

1. The rapid development of the livestock industry, and
2. The achievement of national self-suffieiency in the production of basic foodstuffs.

44. The problems of Rural Development are far harder to overcome in Botswana than in most of Africa as the basic agriculture is already over-extended and the main task is to create new types of employment opportunities in the villages. The rural areas face the dual problem of poverty and under-employment exacerbated by the fact that more than 50% of the rural population is below 15 years of age. The seriousness of the situation has prompted Government to request UNDP for a highly experienced Youth Adviser. So far the most significant contribution to the tackling of the problems posed by this situation has come from the Brigade Movement, a unique cost-covering training system that has spread rapidly within Botswana.

45. Brigades are small vocational-training organisations, which aim to cover their recurrent costs by combining training and production. They have been conspicuously successful in training builders and carpenters, and simultaneously accounting for much of the building work done in smaller centres. They have also become well established in handicraft production - leatherwork, tie-dyeing, dressmaking and pottery, and have made initiatives in mechanical services, borehole maintenance and tanning.

46. The inputs requested from UNDP in the rural development and agricultural sector are described in detail in the following paragraphs. It must be recalled, however, that the Batswana Enterprises Development Project, described in paragraph 81, will also have a significant impact in this area as will the International Trade Centre (ITC)/SIDA financed project which provides for a Manager and Product Development Adviser for an organisation which is marketing Botswana handicrafts. This small project provides vital assistance to a wing of the Brigade Movement.

Ongoing and Approved Projects

The Cooperative Development Centre (BOT/69/503)

47. The development of Cooperatives is a recent phenomenon in Botswana. The original request, which was submitted to UNDP and the ILO in 1966, was to develop a Cooperative Development Centre which would backstop the Cooperative movement by providing management, advisory services and a Training Centre for Co-operative Society officials and committee members. Although the project commenced in January 1970, there was a serious short-fall in the assignment of experts by the Executing Agencies until late 1971.

48. The Government input of twelve counterparts provided from the beginning of the project makes this project the only one in Botswana which has had a full quota of national counterparts since its inception. The delays in delivery by the agencies are being made up by extending the project to the end of 1973. A smaller second phase project will then be requested to ensure that there is a smooth handover to the existing counterparts. In spite of the serious shortfalls in the delivery of expertise, and the purchase of unsatisfactory vehicles, the project is having a profound influence on the Cooperative movement in Botswana. All Cooperative Societies in the country receive regular visits from the project staff.

49. To consolidate what has already been achieved by the Co-operative Movement in Botswana, and to allow steady expansion into new fields, a Cooperative Development Centre has been built with funds provided by SIDA. UNDP is requested during the programme period to continue its assistance to the present project with the provision of four international experts in the fields of organisation, education and training, livestock marketing and management. The experts will be phased out in 197[illegible] and 1976 as the counterparts acquire sufficient experience to take over the experts' duties.

- UNDP'S contribution will be US $433,500, consisting of $380,000 for 152 expert man-months, $38,500 for fellowships and group training, and $15,000 for sundry costs. The Government's counterpart contribution is estimated at R450,000 throughout the programme period.

Animal Husbandry Research (BOT/70/001)

50. This expert has now been in post for two years and has set up a Beef Breeding Research Programme which is of vital importance to the future of the country. The programme studies reproductive performance, calf viability, growth rates, mothering ability and carcass value. It evaluates under differing range environments the two basic cattle types, Tswana and Afrikander, as well as two introduced breeds that could possibly be used in extensive areas - the Tuli and Brahman. In addition the project evaluates the existing crossbreeding being actively recommended by the Government in the range areas of using Afrikander, Brahman and Tuli bulls on Tswana cows. It is only when the results of this programme become available that a breeding programme can be recommended with confidence on the fenced ranches and in particular the ranches being established with IDA/SIDA funds. The expert has produced a preliminary series of reports but the project is far from complete and will have to continue through the programme period. Counterpart research workers have been identified but it will be several years before their training is complete. In the meantime the expert is being assisted by junior agricultural assistants, Voluntary Service Overseas (VSO) and Peace Corps Volunteers. A request has been made for a UN Volunteer Animal Nutritionist.

- UNDP is asked to continue financing the services of the OPAS Animal Husbandry Research Officer for 48 months at a cost of US $108,000. The Government counterpart contribution will be R16,000.

Assistance to the Division of Land Utilization

51. The successful development of a livestock industry is inextricably linked with the quality of the range lands on which the cattle are raised. Although IBRD and SIDA are developing a $6.4 million livestock project, much work remains to be done to assess the optimum overall land use pattern in the country. Overgrazing and mismanagement are currently causing a progressive doterioration of the range in many parts of the country. The catchment study carried out by UNDP Project (BOT/67/501) demonstrated the dangers involved. The Ministry of Agriculture has created a Division of Land Utilization to draw up land use plans of selected areas and provide basic information to District Councils on which rural development proposals can be based. To assist in the development of this new Division, UNDP has been financing the services of four OPAS experts as separate projects. The four experts requested are - a Chief Land Utilization Officer (BOT/70/006), who heads the Division; a Design Engineer/ Cartographer (BOT/71/022), who will continue the ongoing work involved in establishing a sound cartographic section; a Range Ecologist (BOT/71/023), who will undertake ecological surveys of areas selected for development projects, and a Land Development Officer (BOT/72/001), who will produce land capability plans. In addition the team will be strengthened by a Soil Scientist, under recruitment from the UK, and an Associate Expert Range Ecologist.

- UNDP has been requested to provide $294,000 for 148 man-months of OPAS services. The Government counterpart contribution will be R123,000.

Youth Adviser (BOT/72/004)

52. 50% of the rural population of Botswana are young people. Only 23% of primary school leavers can currently expect to get places in secondary schools and less than 10% can expect to find

salaried jobs. The creating of jobs is one of the fundamental needs of a rural development policy. To ensure that all the social implications are fully taken into account Government is requesting the services of an adviser to assist the Ministry of Local Government and Lands on the elaboration and implementation of its youth policy. The expert will advise on the formulation and execution of youth programmes through clubs, community centres and brigades and help in the coordination and support of both Government and non-governmental youth organisation. This expert will work closely with the Rural Development Adviser and the Community Development Training Adviser. The project has been approved and the expert is due to take up his duties on 8 January 1973.

- UNDP has been requested to finance 24 man-months of experts' services amounting to $60,000 during the programme period. The Government counterpart contribution will be R12,000.

Wildlife Biologist (BOT/72/020)

53. A major objective in the field of Wildlife Development, as spelled out in the National Development Plan, is to maximise the use and profits that can be obtained from wildlife by means of hunting, tourism and wildlife viewing. At the same time the availability of wildlife meat for the rural community must be maintained and, if possible, expanded. In 1966 UNDP financed an OPAS Chief Game Warden. This officer was in post from October 1966 to April 1971. He set up the excellent system of National Parks which now exists in Botswana and, in addition, did the bulk of the work on the wildlife legislation which does much to maximise profits from hunting in this country. His work has been of significant value in increasing Government revenues from tourism and wildlife. In addition a complementary post of Wildlife Biologist was established in 1967 to undertake the research aspects necessary to ensure sustained production in the wildlife field. The first expert in post, who was supported by an Associate Expert, achieved

some very significant findings in the inter-relation of foot and mouth disease in the wildlife and domestic cattle populations. The present expert is continuing this important work. Government is very conscious of the need for continuing research in this field and is requesting the continuation of this post through the Programme period.

- UNDP has been requested to provide 48 man-months of expert services and two Associate Experts, at a cost of $127,000. Government's counterpart contribution is estimated at R62,000.

New Projects

General Manager - Designate, Agricultural Marketing Board (OPAS) (BOT/71/012)

54. An FAO Marketing Consultant, who was in Botswana for three months in 1971/72, recommended in his report the setting up of an Agricultural Marketing Board, which the Government has decided in principle to establish. The Board will regulate commercial transactions and will work through existing channels, particularly through Cooperative Societies. It is expected that the Board will be concerned, in the first instance, with three commodities only - maize, sorghum and wheat, and will be the sole importer of these commodities and will establish a floor price scheme for sorghum. The General Manager will be expected to work out precise details of this project when he arrives. He will have a counterpart and three professional staff members, besides supporting clerical assistance, to assist him in this project. It is requested that UNDP/FAO recruit both the General Manager and two Associate Experts to assist him - a Research and Development Officer and an Accounts and Training Officer.

- UNDP is requested to provide 36 man-months of expertise at a cost of $81,000. The Government counterpart contribution is estimated at R200,000, approximately half of which will come from bilateral sources.

Research Agronomist, Kalahari Sand Soils (BOT/72/019)

55. The completed UNDP Project (BOT/67/501) "Surveys and Training for the Development of Water Resources and Agricultural Production" initiated an Agricultural Research Programme into the irrigation potential of the country. In the north-west (Ngamiland) the results pointed to two agricultural possibilities for future development: water control and improved exploitation of the seasonally flooded valley lands bordering the Okavango Delta (Molapos) and the irrigation of the Kalahari Sand Soils. These latter soils cover a vast area of Botswana - probably up to 400,000 square kilometres or 70% of the country. Nothing is known of the behaviour of these soils under irrigation and continuous cultivation. The objective of the project is to provide one expert to continue investigations into the behaviour of the Kalahari Sands. He will also continue and expand the investigations into the practices best suited to the Molapo areas bordering the Okavango. It is hoped that the project will contribute substantially to the long-term planning of agricultural development in north-west Botswana and will be of significant assistance to the United Nations High Commission for Refugees (UNHCR)-sponsored refugee settlement area. In addition, should the project prove that irrigated fodder production on these soils is economically viable, it is certain that significant investment in fodder production for cattle finishing will result.

- UNDP is requested to provide 36 man-months of expert services at a cost of $90,000 and a small equipment component at a cost of $5,500. In the second year of the project it is proposed to request the assistance of a UN Volunteer. The Government counterpart contribution, which includes the making available of an under-utilised experimental station, amounts to R66,180.

Rural Development Adviser (BOT/72/028)

56. Government's Rural Development Policies have been spelt out in detail in paragraph 42. The Rural Development Programme will be the Government's major concern over the next few years, and UNDP is requested to provide a key adviser in this field. The Rural Development Adviser will be based in the Ministry of Finance and Development Planning. He will work in the Unit of Rural Development, where he will be assisted by the local counterpart and another Planning Officer whose responsibility is preparation of Local Authorities' Development Plans and coordination of their implementation. Most Government Ministries will be linked with the execution of Rural Development Policy, as will three high level inter-ministerial committees.

- UNDP is requested to provide three and a half years of expert services at a cost of $105,000. The Governmen counterpart contribution will be R7,000.

C NATURAL RESOURCES

57. The actual use of Botswana's land, water and mineral resources is partly covered in other sectors (see, in particular, Rural Development and Agriculture). This section deals in greater detail with the investigation of Botswana's natural resources. At present far too little is known about both water and mineral resources, although agricultural development is heavily dependent on the former, and the latter have already displayed their potential ability to transform Botswana's economy.

58. The Government's main immediate objective in this sector is to further identify its exact water and mineral resources, and to strengthen the Government Departments directly involved in their exploitation. One major step in this direction will be the creation of a separate Ministry of Mines and Geological Survey in April 1973.

59. Botswana has three separate major water resources - the Okavango Delta, ground water and surface water. UNDP assistance is requested in the further investigation of each of these resources. The other major donor in this sector is SIDA, which is financing a preliminary feasibility study relating to the transfer of water from the Okavango, giving considerable assistance to the development of rural water supplies and strengthening the Department of Water Affairs.

60. The mineral potential of Botswana has long been known but only after independence did active development leading to investment take place. Manganese was mined only on a small scale until recently and a steady export of semi-precious stones and talc has been in progress for a long time. The discovery of the second largest diamond pipe in the World at Orapa and the copper/nickel deposits at Selebi-Pikwe have caused a major change in the future development of Botswana. In relation to the latter discovery UNDP was requested to finance a study of the required infrastructure which has been referred to in paragraph 21. Other resources of copper, coal and soda ash exist and are also on the brink of development and much exploration is still under way. In fact mining potential is so great that Government's main problem is to control it and harness its development to secure maximum benefit for the country.

61. The actual exploitation and processing of minerals is expected to be the role of private companies and relatively small new Batswana enterprises. External aid will, however, be required for some time to come in strengthening the responsible technical Ministries.

62. The Government of Botswana is requesting continued assistance from UNDP in these fields. In addition to the projects described below, further assistance in the field of mineral development is likely to be requested under the general consultancy programme mentioned in the Infrastructure section (see paragraph 35).

Ongoing and Approved Projects

Provision of Two Hydrometrists (BOT/71/017)

63. Botswana had no established hydrological service until the mid-1960s when planned developments based on scarce surface water resources highlighted the urgent need to obtain hydrological data if future developments were to be soundly planned. When UNDP Project "Surveys and Training for the Development of Water Resources and Agricultural Production" (BOT/67/501) terminated in May 1972, the control of the Hydrological Survey the project had established was handed over to Government. At this stage, however, the training programme had not yet equipped the local staff to the extent that the Department could be fully localised. The Government therefore requested that UNDP continue to strengthen the staff with OPAS officers, and simultaneously continue to fund the ongoing training programme. Three Batswana have already benefitted from UNDP fellowships in Hydrometry and courses for a further three trainees are being arranged. All the training is being given elsewhere in Africa - in Tanzania, Zambia, and possibly Ghana, and is financed under the Fellowship Blanket (see paragraph 92).

64. To assist the Government in ensuring that the work of the survey is not temporarily halted, UNDP has been requested to provide the services of two Hydrometrists, who will continue the work underway and at the same time undertake the responsibility of making maximum use of local staff by continuing their in-service training in hydrometry, surveying and elementary hydrological computation and processing methods. One of the experts has already been recruited through FAO and the other has been selected. It is anticipated that this expert will also be in post by January 1973.

- UNDP has been requested to provide 66 man-months of expert services at a cost of US $143,000. The Government counterpart contribution will be R31,000.

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Head of the Hydrogeological Division (OPAS) (BOT/72/021)

65. Shortage of water supplies is a major limiting factor in Botswana's development, and maximum utilisation of ground water is one way of overcoming this limitation. Great emphasis is as a result placed on hydrogeological research, borehole siting and drilling programmes conducted by the Hydrogeological Division of the Geological Survey and Mines Department. The Head of this Division occupies a position of responsibility directly concerned with the well-being and advancement of Botswana's people. In this regard, the Government attaches a very high priority to this post, and has turned to the UNDP for assistance in providing the services of an expert to head the Hydrogeological Division, and to be responsible for the direction and planning of the various functions of the Department.

- UNDP is requested to contribute $86,000 for 42 man-months of OPAS services, and the Government counterpart contribution is estimated at R19,000.

New Projects

Investigation of the Okavango Delta as a Primary Water Resource for Botswana (BOT/71/506)

66. The UNDP project, "Surveys and Training for the Development of Water Resources and Agricultural Production" (BOT/67/501) terminated on 31 May 1972. It had included studies of the water resources of eastern Botswana, a detailed study including sociological investigations of a catchment area, as well as hydrological studies of the Okavango Delta. These studies showed that the water resources of eastern Botswana are likely to be fully exploited within fifteen years. The Okavango Delta is Botswana's largest water resource and is virtually unused. As it is the Government's wish to investigate the possibility of a large-scale transfer of water from the Okavango to the more populous eastern part of the country, a preliminary feasibility study in this direction is currently taking place. It is envisaged that the results of this study will be available by April 1973.

67. The project's objective is to provide key information for the development of a national water plan and related national water policies. It will explore the possibilities of changing the hydraulics of the channels through the delta, and will conduct detailed ecological studies in the delta, with particular reference

to the possible effects of the withdrawal of water on both the human population and the local vegetation and wildlife. In the development of the project, UNDP will collaborate closely with SIDA and the Danish International Development Agency (DANIDA) who will assist Government with the counterpart contribution.

- UNDP has been requested to provide 188 man-months of expertise at a cost of $ 470,000 in the fields of hydrology, hydrological engineering and ecology, including the services of a Project Manager and a wide range of consultant services. In addition, Associate Expert services in Plant Ecology and two UN Volunteers in the fields of Sociology and Mechanics are required. 54 man-months of fellowships costing $ 19,200 and an equipment component costing $ 91,000 are included. UNDP's contribution will be US $ 596,200 and the Government's counterpart contribution is estimated at R313,900.

Industrial Minerals Geologist (BOT/72/029)

68. Recent developments in the exploitation of Botswana's mineral resources have been large-scale and capital intensive. The Government desires to encourage labour intensive small industries in the industrial minerals field. These industries will be linked with the Batswana Enterprises Development Project (see paragraph 81). It is necessary, however, that reserves of potential minerals for such industries be sought out and evaluated. The Government, therefore, requests the services of an expert to investigate the availability of such minerals as aggregate ballast, ornamental and building stone, cement industry raw materals and clays. He will also be required, in collaboration with the Director of Geological Survey and his staff, to select appropriate industrial minerals for exploitation, and make intensive studies related to their potential industrial use. This is a project with investment potential which may result in significant employment creation.

- UNDP is requested to provide two years of expert service at a cost of US $ 60,000. The Government counterpart contribution will be R4,000.

D. INUDSTRY AND COMMERCE

69. Government's policies towards future development in the industrial and commercial spheres are firmly tied to the twin objectives of job creation and rural development. Government wishes to ensure that new initiatives maximise potential employment, that they are related to rural needs (sited in rural areas or using rurally produced raw materials) and that, wherever possible, the entrepreneurs are themselves Batswana.

70. The Government of Botswana aims at attracting new industries both through the Botswana Development Corporation and through economic incentives. The Botswana Development Corporation (BDC) is a limited liability company, owned entirely by Government. Its declared objectives are:

> "to create and/or promote commercially viable businesses which either because of the nature of their products or services, or because of the manner in which they are operated, will contribute to national goals."

The Corporation has helped to establish businesses in the fields of insurance, printing, aircraft servicing and handicraft marketing.

71. In 1968 manufacturing accounted for approximately 9% of GDP. This figure is, however, a little misleading, as at least 6% of the value-added produced came from one enterprise, the BMC The BMC is fully owned by the Government and has a monopoly on the export of cattle and beef. Its major obligation is to maximise the return on cattle-production to the producer. In 1969 the BMC provided 75% of Botswana's exports. It accounts for virtually the entire commercial offtake from the National Herd (167,430 head in 1971). Income Tax from the BMC (an estimated R1.1 million in 1972/73) accounts for 5% of the Government Domestic Revenue.

72. The other manufacturing and commercial enterprises are concentrated mainly in three places - Lobatse, Gaborone and Francistown. They are all relatively small, and include garments and cap factories, breweries of African beer, wood and metal furniture manufacturers, engineering workshops, a bonemeal factory, a maize-mill, a tyre retreading plant and a fast expanding game trophy and curio business.

73. In recent years Botswana has greatly improved its overseas image as a tourist centre. Between 1965 and 1970 the annual number of visitors to Botswana's two main Game Reserves almost doubled, from 3,000 to 5,200. Revenue from game licenses during the same period trebled. UNDP has made a significant contribution to development in this sector, in the services of a Chief Game Warden and Wildlife Biologists.

74. Two of the most important new industrial initiatives in coming years may involve an increase in the present abattoir facilities, and a new Tannery. If, as is generally hoped, the off-take from the National Cattle Herd continues to rise, increased abattoir facilities will be essential. A USAID team recently investigated the possibility of siting a new abattoir in the north-west of Botswana. Although no decision on their recommendations has yet been taken, it is clear that cattle producers in the relatively remote western and north-western rural areas would benefit from such an investment. If an abattoir is built in the north-west, it will be able to make good use of both the Francistown-Maun road, upgraded in recent years with the help of an IDA loan, and the new Nata-Kazangula road, being built with USAID assistance linking Botswana with Zambia, one of Botswana's markets for beef.

75. The possibility of building a large tannery was one of the major recommendations of a United Nations Industrial Development Organization (UNIDO) expert who made an Industrial Survey of Botswana during 1971, under the Special Industrial Services (SIS) programme. It has also been the subject of a recent SIDA mission, but to date no final decision has been reached. A tannery would be able both to make use of the raw hides from the BMC abattoir and to supply rural leatherwork centres with raw materials.

76. Rural handicraft production will benefit considerably during the programming period from a "multi-bi" SIDA/ITC project, which has recently become operational. Under this project a Product Development Adviser and a Handicraft Marketing expert will be attached to the main Cooperative Handicrafts Marketing body.

77. The most important new development in this sector during the programming period is, however, likely to be the launching of a comprehensive Batswana Enterprises Development Project, described in paragraph 81. a UNDP/UNIDO expert on Small-scale industries has recently arrived, and is expected to participate closely in

the formulation and eventual execution of the project. SIDA has already expressed considerable interest in the scheme, which is expected to encourage the location of new small industries in large villages, and is likely to participate in the funding jointly with UNDP.

Ongoing and Approved Projects

Commissioner of Commerce and Industry (BOT/71/015)

78. As a consequence of the increasing responsibilities of the Ministry of Commerce, Industry and Water Affairs, a review of the Ministry was recently carried out to ensure that its organisational structure and its staff complement were adequate to meet the new demands which the Ministry now faces and will continue to face. The staffing of the Commerce and Industry section, which consisted of two Assistant Secretaries, one Executive Officer and a Registrar of Companies, was totally inadequate to deal with the matters for which the Ministry was responsible, in the field of commercial and industrial development.

79. UNDP was therefore approached in October 1971 to fill the key post of Commissioner of Commerce and Industry and the expert, who was recruited through UN/OTC arrived in August 1972. He heads a Department which includes the following units: a Weights and Measures Division, a Registry of Companies, a Tourism section, and Trade and Industry sections.

- UNDP has been requested to provide an OPAS expert for 48 man-months at a cost of US $88,000. Two Associate Experts are also requested. The Government's counterpart contribution is estimated at R26,000.

Adviser, Small-scale Enterprises (BOT/71/018)

80. Reference is made in paragraphs 77 and 81 to the proposed Batswana Enterprises Development Project. The Government has requested the services of an Adviser in small-scale industries to assist in the preparatory work for this project. The expert has been recruited by UNIDO and is assisting in the formulation of the policies and legal framework that will be required for the successful establishment and development of the project. He will give advice on hire-purchase, industrial estates, equipment-leasing schemes, and management development.

- UNDP has been requested to provide the continued services of an expert in the field of small-scale enterprises development for 20 man-months at a cost of US $57,000. The Government counterpart contribution will be R10,000.

New Projects

Batswana Enterprises Development Project (BOT/72/009)

81. Botswana is at a very early stage of industrial development. In general industrial enterprises are few and, by any standards, small. In January 1970, there were only 16 licensed industrial enterprises in the private sector employing approximately 500 workers. Most industrial activities are limited to Francistown, Gaborone and Lobatse. Moreover, the modern sector is almost entirely controlled by a small number of expatriates. In order to provide employment opportunities for as many Batswana as possible, and to provide assistance to those Batswana who are prepared to help themselves in order that they may realise the ownership and management of their own enterprises, UNDP and SIDA have been requested jointly to assist in the development of a small-scale industries project. The project will involve in the first instance, the establishment of three industrial sites at which small-scale industries such as woodwork, masonry, gemology etc., can be established. In addition, an advisory service in this field will be set up. This project is still in the process of formulation, but is expected to include the following features. A new unit will be established to supervise the establishment of industrial sites at key centres. This unit will encourage potential Batswana entrepreneurs to establish small enterprises at these sites, and will provide training, capital, purchasing and marketing facilities where they are required.

- UNDP is requested to provide 93 man-months of expert services during the programmed period at a cost of US $279,000. The Government's counterpart contribution and the SIDA input are still being negotiated, but are estimated to be not less than R345,0

E. HUMAN RESOURCES

82. The most serious obstacle to development in Botswana is the shortage of educated manpower equipped with technical and managerial skills. A few statistics will display the breadth of the problem:

- In 1970, in the professional and scientific class of the Botswana Civil Service, only 5 out of 79 serving officers were citizens.
- In 1971, only 60% of those aged between 7 and 14 years were receiving full-time education.
- According to the 1971 Population Census, 68% of the population have had no education, and only 11% of those aged 15 or over have had 5 or more years of education.
- According to this census, only 13% of the labour force were employed in the cash sector. In contrast, 24% of the domestic labour force (88,400 Batswana) were found to be economically inactive.

It is Government's policy to fully localise the Civil Service by 1990, and to ensure that the private sector keeps in step. Government has adopted a three-pronged approach to this problem. It involves identifying the exact manpower situation, putting considerable stress on the expansion of education, and temporarily using external assistance to fill posts for which qualified Batswana are not available.

83. The National Development Plan foresees a massive investment in secondary education, and envisages that:-

a) for every 100 pupils entering Form I, about 50 will leave to enter the labour force or vocational training before reaching Form IV;

b) 37 will complete full secondary education; and

c) approximately 13 will proceed to higher education.

84. In primary education, the stress has been on the quality of teaching rather than on numerical expansion. (Enrolment has increased by only 11% since Independence). UNDP has provided a most important input in this sector. A UNDP/UNESCO/UNICEF - United Nations Children's Fund - project at Francistown Teacher Training College was successful in upgrading 600 primary teachers. This project was concluded during 1972.

85. During the programming period the main stress will be on secondary, higher and vocational education. Secondary education benefits from considerable bilateral assistance, in the form of loans and grants (particularly from SIDA and the UK) and Volunteers from six different Agencies.

86. UBLS has also been most successful in attracting bilateral assistance. In 1971 alone it received US $3 million in grants from the USA, Canada and the UK. It is also the focus of several UNDP funded sub-regional projects - the post of Vice-Chancellor and Science-Teacher Training, as well as expected new projects such as the post of Dean, Faculty of Agriculture, and Statistics Training.

87. UNDP assistance in the educational field is requested in various aspects of Vocational Training. Continued support for the successful Vocational Training Centre, staff to strengthen the Botswana Agricultural College, and a team to staff the new National Health Centre are the main features in this field.

88. Rural health services are still in an early stage of development. The first explorers in the region were medical missionaries. A tradition has since been established of aid to Botswana's rural health services from overseas non-governmental organisations. Their invaluable impact has recently been supplemented by assistance from the International Planned Parenthood Federation (IPPF) and a UNFPA/WHO/UNICEF project. WHO is conducting a very successful country-wide Smallpox Immunization Scheme. This envisages a 100% coverage of the country by the end of the year. Another vital health hazard which is of major significance in the Okavango area is Trypanosomiasis. This problem is being tackled by a UNDP/WHO Epidemiologist who has been resident in the area since June 1972.

Ongoing and Approved Projects

Botswana Agricultural College (BOT/68/006) (BOT/72/025) (BOT/71/009)

89. The problem of localisation and the need to train Batswana in all levels of technical accomplishment have been emphasised in the National Development Plan. The Botswana Agricultural College was set up with the primary intention of staffing the Department of Agriculture. UNDP/FAO assistance was initially to provide the

Principal under OPAS terms. The Principal (BOT/68/006) is a key figure in the development of the teaching of agriculture in Botswana. Under his direction the College has expanded its programmes and is currently developing courses of instructions for Agricultural Assistants, Animal Health Assistants, and Community Development Assistants. All these courses are at the sub-diploma level. It is envisaged that the Botswana Agricultural College will continue to provide such courses in the future, while the relatively small need for diplomates and graduates in Agriculture will be met by the Swaziland Agricultural College and University Centre (SACUC). UNDP/FAO have since 1967 provided three OPAS Principals for the Botswana Agricultural College, one of whom is currently in post. An OPAS Vice-Principal (BOT/72/025) has recently been appointed to assist the Principal. Also based at the College is the UNOTC recruited Community Development Training Officer, who is coordinating and administering the training programme for the Community Development Department.

- UNDP has been requested to provide 114 man-months of expertise at a cost of $256,000 over the four years 1973 - 1976. The Government counterpart contribution is expected to be R40,000.

Epidemiologist (Trypanosomiasis) (BOT/68/014)

90. A large part of the Okavango region is inhabited by tsetse and the town of Maun and the Refugee Centre at Etsha (established under the auspices of UNHCR) are just outside the Tsetse belt. While the eventual eradication of the tsetse is planned by Government at some future date, there is an immediate and urgent need for a Specialist to be available in Maun to advise and initiate preventive and curative measures. UNDP was first requested to finance this expert in 1968. Serious recruitment difficulties in locating a suitable expert delayed the expert's arrival until June 1972. In addition to his substantive duties the expert will be associated with the second phase project, "The Investigation of the Okavango as a Primary Water Resource for Botswana", as well as any future projects involving tsetse eradication and the Wildlife Programme.

- UNDP has been requested to provide 30 man-months of expert services in epidemiology at a cost of $75,000 while the Government contribution will be R5,000.

National Vocational Training Scheme and Instructor Training (BOT/70/504)

91. In 1968 the Governing Council approved a project titled "National Vocational Training Scheme and Instructor Training", which is being executed by the ILO. The Project was designed as a preliminary input to commence the training of instructor trainees, some of whom would be destined to staff the Vocational Training Centre being built by SIDA. Government wishes ILO assistance to continue in Phase II on the same scale as in Phase I, with the following principal objectives:-

a) the staffing of the Vocational Training Centre with locally trained craft instructors;
b) the upgrading of the skills of the craft instructors;
c) the training of additional craft instructors for other training institutions and the "brigade" movement;
d) the development of a full range of engineering and building craft courses and supporting activities.

- For this purpose UNDP has been asked to provide US $869,000 worth of assistance including 243 man-months of expertise in the fields of Automotive and Electrical Engineering, Building, Machine Shop/ Fitting, Welding, Plumbing and Refrigeration. Also included is expertise in instructor training, trade testing and craft legislation. The project includes 42 man-months of fellowships, equipment and miscellaneous assistance. Government counterpart contribution amounts to R1,396,000. Government has also indicated that it would like UNDP to consider a further 6 months extension to the project, should it be deemed necessary at a later date.

Fellowships (BOT/72/007)

92. One of the major factors affecting the UNDP Programme in Botswana is the shortage of trained Batswana. It is, therefore, essential that UNDP regards the training of Batswana to fill posts occupied by UN experts (and particularly by OPAS experts) as an indispensable input into the programme. It is proposed to adopt the following policies in this respect:

i) To ensure that all experts are regularly reminded of the importance of counterpart training, and that they are given all necessary advice and assistance in the selection of counterparts, the arrangement of training programmes and the use of overseas fellowships.

ii) Large-scale projects will continue to include their own self-contained fellowship components.

iii) All other new projects will not initially include fellowship components. Instead, a "Fellowship Blanket" is to be established, from which funds will be allocated to particular projects once a fellow and his appropriate course have been identified.

iv) UNDP fellowship funds will be used solely for fellowships which are clearly linked with ongoing UNDP projects.

93. There are at present 16 fellows receiving training under the UNDP programme. Of these 12 are studying in Africa. A further 32 fellowships are planned during the period 1973-1976. Candidates have already been earmarked for 7 of these.

- UNDP is requested to provide $116,000 to fund 16 ongoing fellowships, and a further $148,000 for 32 new fellowships. The Government counterpart contribution will be $66,000.

Dean, Faculty of Agriculture, UBLS (BOT/72/026)

94. The significance of SACUC to Botswana's agricultural education policies has already been referred to in paragraph 89. It is expected that the post of Dean of the Faculty of Agriculture in the University of Botswana, Lesotho and Swaziland will be funded from the regional UNDP IPF in the near future. The three Governments have attached a high priority to the early filling of this post, which is tenable at the Swaziland Agricultural College and University Centre, in Luyengo, Swaziland, and have therefore agreed to initially fund the post from their respective IPFs.

- UNDP is requested to provide US$4,000 for this purpose in 1973. The Government counterpart contribution will be R1,000.

New Projects

National Health Institute (BOT/71/007)

95. A severe shortage of trained personnel exists in the health sector in Botswana. The establishment of a National Health Institute has long been planned, but has been subject to regrettable delays. The buildings for the Institute have now been developed under a "multi-bi" arrangements with DANIDA and WHO. UNDP is requested to provide the experts for this Institute, which is planned to cater for 110 nursing students and 50 trainee Health Assistants. It is hoped that these experts, a Chief Nurse Educator, a Sanitarian Tutor, and two Associate Expert Tutors in Midwifery and Public Health, will be able to maintain the Institute until mid-1976, when it is anticipated that national staff will be able to take over.

- The total value of the UNDP contribution is $203,000 during the programming period; $180,000 for 72 expert man-months, $14,600 for fellowships and $8,400 for vehicles. The Government counterpart contribution will be R234,000, of which DANIDA will provide a large part.

Employment Services Adviser (BOT/72/030)

96. It is essential in any country that there be a link between education and employment. Botswana is on the threshold of industrial development, and an efficient employment organisation is urgently needed. Government is therefore requesting the services of an expert to assist the Labour Commissioner in the establishment of a Central Employment Exchange, and in the training of the staff to man it and the regional exchanges that will also be required.

- UNDP is requested to provide US $60,000 for 24 man-months of expert services. Government counterpart contribution will be R4,000.

III

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : INFRASTRUCTURE						
							Projects in Progress or Approved						
	13	13	14	10	50	1)	Director of Meteorological Services (OPAS)	101	26	25	25	25	
	2	4	4	4	14	2)	Agricultural Statistician (OPAS)	94	27	27	27	13	
		3	5	5	13	3)	Government Statistician (OPAS)	60	25	23	12		
						4)	Systems Analyst	15	7	8			
5	5	5	5	5	25	5)	Senior Town Planner (OPAS)	115	23	23	23	23	23
						6)	Consultant National Accounts	8		8			
7	7	7	7	1	29	7)	Chief Executive, Water Utilities Corporation (OPAS)	100	4	24	24	24	24
			3		3	8)	UBLS Statistical Training	9		9			
				12	12	9)	Co-ordinator for Shashe Project	34	34				
				1	1	10)	Stores Management Consultancy	23	23				
						11)	Institute of Public Administration	4		4			
12	27	32	38	38	147		TOTALS	563	169	151	111	85	47

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : INFRASTRUCTURE						
							New Projects						
2	2	2	2		8	1)	General Consultancies	40		10	10	10	10
		1	3		4	2)	Secretary for Transport (OPAS)	30		22	8		
2	2	3	5		12		TOTALS	70		32	18	10	10
14	29	35	43	38	159		INFRASTRUCTURE SUB-TOTALS	633	169	183	129	95	57

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)						Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total		Total	1972	1973	1974	1975	1976
						Sector : RURAL DEVELOPMENT AND AGRICULTURE						
						Projects in Progress or Approved						
50	130	130	140	28	478	1) Cooperative Development Centre	571	138	127	136	133	37
4	4	4	4	4	20	2) Animal Husbandry Research Officer (OPAS)	135	27	27	27	27	27
5	5	5	5	5	25	3) Chief Land Utilisation Officer(OPAS)	115	23	23	23	23	23
	3	10	10	10	33	4) Design Engineer Cartographer (OPAS)	78	22	25	23	8	
20	20	20	10		70	5) Range Ecologist (OPAS)	84		12	24	24	24
	4	4	2	3	13	6) Land Development Officer (OPAS)	81	19	12	25	25	
		6	6		12	7) Youth Adviser	65	5	30	30		
16	16	16	14	14	76	8) Wildlife Biologist	163	36	37	30	30	30
				5	5	9) Director of Water Affairs (OPAS)	21	21				
				1	1	10) Consultant in Agricultural Marketing	2	2				
				2	2	11) Rural Sociology	17	17				
				1	1	12) Tsetse Control Consultancy	1	1				
95	182	195	191	73	736	TOTALS	1333	311	293	318	270	141

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)						Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total		Total	1972	1973	1974	1975	1976
						Sector : RURAL DEVELOPMENT AND AGRICULTURE						
						New Projects						
	70	70	60		200	1) General Manager - designate, Agricultural Marketing Board (OPAS)	81		27	27	27	
11	22	22	11		66	2) Research Agronomist - Kalahari Sand Soils	95		20	30	30	15
2	2	2	1		7	3) Rural Development Adviser	105		15	30	30	30
13	94	94	72		273	TOTALS	281		62	87	87	45
108	276	289	263	73	1009	RURAL DEVELOPMENT AND AGRICULTURE SUB-TOTALS	1614	311	355	405	357	186

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : NATURAL RESOURCES						
							Projects in Progress or Approved						
3	6	11	11	6	37	1)	Hydrometrists (OPAS)	165	22	52	50	26	15
5	5	5	4		19	2)	Head Hydrogeological Division (OPAS)	86		17	23	23	23
				400	400	3)	Surveys and Training for the Development of Water Resources and Agricultural Production	172	172				
8	11	16	15	406	456		TOTALS	423	194	69	73	49	38

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs In Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : NATURAL RESOURCES						
							New Projects						
	131	129	54		314	1)	Investigation of the Okavango Delta as a Primary Water Resource for Botswana	597		100	250	247	
	1	2	1		4	2)	Industrial Minerals Geologist	60		15	30	15	
	132	131	55		318		TOTALS	657		115	280	262	
8	143	147	70	406	774		NATURAL RESOURCES SUB-TOTALS	1080	194	184	353	311	38

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs In Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : INDUSTRY AND COMMERCE						
							Projects in Progress or Approved						
6	6	6	6	2	26	1)	Commissioner of Commerce and Industry (OPAS)	95	7	22	22	22	22
		4	6	2	12	2)	Small-Scale Industries Adviser	66	9	33	24		
6	6	10	12	4	38		TOTALS	161	16	55	46	22	22

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)							Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total			Total	1972	1973	1974	1975	1976
							Sector : INDUSTRY AND COMMERCE						
							New Projects						
105	120	120			345	1)	Batswana Enterprises Development Project	279			96	90	93
105	120	120			345		TOTALS	279			96	90	93
111	126	130	12	4	383		INDUSTRY AND COMMERCE SUB-TOTALS	440	16	55	142	112	115

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)						Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total		Total	1972	1973	1974	1975	1976
						Sector : HUMAN RESOURCES						
						Projects in Progress or Approved						
5	5	5	5	1	21	1) Principal, Botswana Agricultural College (OPAS)	108	8	25	25	25	25
	5	5	5		15	2) Vice-Principal, Botswana Agricultural College (OPAS)	81		27	27	27	
	1	3	3	2	9	3) Community Development Training Officer	97	22	30	30	15	
	1	2	2	1	6	4) Epidemiologist (Trypanosomiasis)	103	28	30	30	15	
	70	139	1187	95	1491	5) Vocational Training Centre	1152	283	518	325	26	
15	12	17	22	14	80	6) Fellowship Blanket	321	57	87	67	50	60
			1		1	7) Dean of Agriculture, University of Botswana, Lesotho and Swaziland (OPAS)	6	2	4			
				2	2	8) Teacher Training (OPAS)	13	13				
20	94	171	1225	115	1625	TOTALS	1881	413	721	504	158	85

Country : BOTSWANA

PRELIMINARY LIST OF PROJECTS AND ESTIMATED AMOUNT OF GOVERNMENT AND UNDP INPUTS FOR THE PERIOD 1972-1976

IPF = US $5.8 Million

Estimated Government Inputs in Thousands of Rands (LCU)						Activities by Sector	Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total		Total	1972	1973	1974	1975	1976
						Sector : HUMAN RESOURCES						
						New Projects						
34	80	120	180		414	1) National Health Institute	203		58	71	64	10
	1	2	1		4	2) Employment Services Adviser	60		15	30	15	
34	81	122	181		418	TOTALS	263		73	101	79	10
54	175	293	1406	115	2043	HUMAN RESOURCES SUB-TOTALS	2144	413	794	605	237	95

ACTIVITIES BY SECTOR

SUMMARY AND TOTALS

Estimated Government Inputs in Thousands of Rands (LCU)							Estimated UNDP Inputs in Thousands of US $					
1976	1975	1974	1973	1972	Total		Total	1972	1973	1974	1975	1976
14	29	35	43	38	159	Infrastructure	633	169	183	129	95	57
108	276	289	263	73	1009	Rural Development and Agriculture	1614	311	355	405	357	186
8	143	147	70	406	774	Natural Resources	1080	194	184	353	311	38
111	126	130	12	4	383	Industry and Commerce	440	16	55	142	112	115
54	175	293	1406	115	2043	Human Resources	2144	413	794	605	237	95
295	749	894	1794	636	4368	TOTALS FOR ALL SECTORS	5911	1103	1571	1634	1112	491

IV

PRELIMINARY LIST OF PROJECTS WITH TENTATIVE TIMETABLE FOR PROJECT FORMULATION AND IMPLEMENTATION

(xxx - Tentative period for implementation :
--- - Tentative period for formulation, appraisal approval, Executing Agency and Government preparatory activities)

Botswana Projects	1972 J F	M A	M J	J A	S O	N D	1973 J F	M A	M J	J A	S O	N D	1974 J F	M A	M J	J A	S O	N D	1975 J F	M A	M J	J A	S O	N D	1976 J F	M A	M J	J A	S O	N D
INFRASTRUCTURE																														
In Progress or Approved																														
Director, Meteorological Services (OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx						
Agricultural Statistician (OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									
Government Statisticiah(OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx															
Systems Analyst	-	--	--	-x	xx		xx	x																						
Senior Town Planner (OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Consultant,National Accounts			--	--	--		xx	x																						
Chief Executive,WUC (OPAS)			--	--	--		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
UBLS Statistical Training			--	--	--		xx	xx	xx	xx	xx	xx																		
Coordinator, Shashe Project	xx	xx	xx	xx	xx	xx																								
Stores Management Consultancy	--	--	xx																											
Institute of Public Administration			--	--	--		x																							
New Projects																														
General Consultancies							xx	xx					xx	xx					xx	xx					xx	xx				
Secretary for Transport (OPAS)					--		--	xx	xx	xx	xx	xx	xx	xx	xx	xx														

Botswana Projects	1972 J F	M A	M J	J A	S O	N D	1973 J F	M A	M J	J A	S O	N D	1974 J F	M A	M J	J A	S O	N D	1975 J F	M A	M J	J A	S O	N D	1976 J F	M A	M J	J A	S O	N D
RURAL DEVELOPMENT AND AGRICULTURE																														
Ongoing and Approved																														
Cooperative Development Centre	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Animal Husbandry Research (OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Chief Land Utilisation (OPAS)	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Design Engineer/ Cartographer (OPAS)	--	-x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx										
Range Ecologist (OPAS)							--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Land Development Officer (OPAS)	xx	xx	xx	xx	x		--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx						
Youth Adviser			--	--	--		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx												
Wildlife Biologist	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Director of Water Affairs (OPAS)	xx	xx	xx	xx	xx	x																								
Consultant in Agricultural Marketing	xx																													
Rural Sociology	--	-x	xx	xx	x																									
Tsetse Control Consultancy		--	xx																											
New Projects																														
General Manager, Agricultural Marketing (OPAS)			--	--	--		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx						
Research Agronomist (Kalahari)							--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx			
Rural Development Adviser							--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx

Botswana Projects	1972 J F	M A	M J	J A	S O	N D	1973 J F	M A	M J	J A	S O	N D	1974 J F	M A	M J	J A	S O	N D	1975 J F	M A	M J	J A	S O	N D	1976 J F	M A	M J	J A	S O	N D
NATURAL RESOURCES																														
Ongoing and Approved																														
Hydrometrists (OPAS)	--	--	-x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx			
Head, Hydrogeological Division (OPAS)			-	--			--	--	-x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Surveys and Training etc.	xx	xx	x																											
New Projects																														
Okavango Delta Project				--	--	--	--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx						
Industrial Minerals Geologist							--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									
INDUSTRY AND COMMERCE																														
Ongoing and Approved																														
Commissioner of Commerce (OPAS)	--	--	--	xx	xx		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Small-Scale Industries Adviser	-	--	--	-x	xx		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	x													
New Projects																														
Batswana Enterprises Development Project							--	--	--	--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx

Botswana Projects	1972 J F	M A	M J	J A	S O	N D	1973 J F	M A	M J	J A	S O	N D	1974 J F	M A	M J	J A	S O	N D	1975 J F	M A	M J	J A	S O	N D	1976 J F	M A	M J	J A	S O	N D
HUMAN RESOURCES																														
Ongoing and Approved																														
Principal, Botswana Agricultural College (OPAS)	x-	--	--	--	-x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Vice-Principal, Botswana Agricultural College(OPAS)			--	--	--		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx						
Community Development Training Adviser	--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									
Epidemiologist (Trypanosomiasis)	--	-x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									
Vocational Training Centre	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									
Fellowships	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
Dean of Agriculture (SACUC)		--	--	--	xx		xx	xx																						
Teacher Training (OPAS)	xx	xx	x																											
New Projects																														
National Health Institute	--	--	--	--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx				
Employment Services Adviser							--	--	--	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx									

V THE RESERVE PROGRAMME

97. This project list includes projects which were discussed with agency representatives and Government at the time of the Country Programme preliminary discussions in June 1972. The projects listed are all accorded a high priority by Government but in view of the limited IPF did not command a high enough priority to be included in the Country Programme.

98. In certain cases new developments have occurred since the June 1972 meeting. These are briefly noted. Some suggested projects for the Reserve Programme, notably in the field of agriculture, were put forward in such skeleton form and with such preliminary costings that they have been omitted.

SUMMARY

	US $
Infrastructure	
Senior OPAS Personnel	100,000
Civil Aviation Adviser	30,000
Human Resources	
Labour Legislation Adviser	15,000
Functional Literacy	300,000
Rural Development and Agriculture	
Tsetse Eradication	136,000
Home Economics	140,000
Total	721,000

INFRASTRUCTURE

Senior OPAS Personnel

99. In preparing its Country Programme the Government of Botswana is attempting to fill its most urgent priorities but at the same time maintain a certain degree of flexibility. The serious shortage of trained manpower has already been mentioned. Government is making maximum use of UNDP financed OPAS personnel and if funds permitted would like to extend this facet of UNDP assistance.

- As it is not possible to forecast accurately the specific technical requirements in this field Government is requesting UNDP to finance 44 man-months of unspecified OPAS assistance in 1974, 1975 and 1976 at a cost of US $100,000.

Civil Aviation Adviser

100. Reference has been made earlier in the Infrastructure sector to the present fragile economic state of Civil Aviation in Botswana. The heavy dependence on neighbouring states, and the delicate political nature of over-flying increases the potential value of a multi-lateral input into this sector. A potential Motswana Director of Civil Aviation has been identified, and may take up the position during 1973. In his first few years he will, however, require expert advice, and the Government would like to request UNDP/ICAO to provide a Senior Adviser in Civil Aviation, preferably with knowledge and experience of the special problems confronting aviation in Southern Africa.

- UNDP would be requested to provide US $30,000 to fund this post for 12 man-months. The Government counterpart contribution will be R4,000.

RURAL DEVELOPMENT AND AGRICULTURE

101. Tsetse Fly Eradication Project

Since 1967 the Tsetse Fly Control Unit of the Botswana Government has cleared approximately 12,500 square kilometres of flies at a cost of US $18 per square kilometre. This area is outside the Okavango Delta and in the Chobe district in northern Botswana. The point has been reached when the unit is fully occupied maintaining what has been cleared. Aerial spraying has proved to be an efficient method of clearing flies at a competitive cost in Zambia. In theory it has been calculated that tsetse fly could be eradicated from north-west Botswana in 6 years at a total cost of US $400,000 per year. Before implementing such a scheme it is necessary to conduct a pilot trial to ascertain whether aerial spraying techniques developed in Zambia would be successful in north-west Botswana and if the costs are realistic.

- UNDP would therefore be requested to supply 24 man-months of expert time, 25 man-months of a UN Volunteer or Associate Expert together with equipment and aircraft time to a total cost of US $136,000 if funds were available. Government counterpart cost would be R62,000.

102. Home Economics Development

Home economics in Botswana is related to the National Development Plan, citing the need for an improvement in social welfare for the Botswana people. There is a need to develop training specialities such as home economics, agricultural training for women and agricultural teachers.

- To assist in the development of home economics training in Botswana, UNDP might be requested to provide an expert and associate experts to work in this field within the Ministry of Agriculture, at a cost of US $140,000.

HUMAN RESOURCES

National, Functional Work-oriented Literacy Project

103. The high level of illiteracy (80 per cent) in Botswana constitutes a major obstacle to development. A national functional work-oriented literacy programme to eliminate illiteracy in Botswana over the course of 7 years and simultaneously to provide basic occupational training would improve:

a) productivity and the quality of life in the rural areas, thus reducing the flow to the towns; and

b) the communication ability of various government extension programmes (agriculture, health, community development, etc.).

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has already demonstrated the motivational advantages of linking literacy with occupational training. Its chief merit lies in its capacity to provide a carefully defined and intensive "package" programme on the most important vocational "function" for specific groups of illiterates. This work-oriented aspect of the project would make a significant contribution to Government's priority objective of creating new employment or more productive employment in the rural areas. Specific programmes would need to be designed for each occupational group: cattle farmers, crop farmers, rural women, urban workers. The project would avoid a major error in other literacy projects by providing sufficient follow-up materials and a continuing programme of adult education for the new literates. The success of the project would also depend upon close cooperation between Government departments concerned with rural development. Short, intensive literacy courses would be held during the "slack" agricultural season (August-September) to avoid irregular attendance. This project will be considered, regarding priority, with a suggested project prepared by the recent Ouldali/Thomas mission from UNESCO which recommended a mass communication project, possibly financed by the Norwegian Agency for International Development (NORAD) funds in trust.

UNDP has been requested to provide 108 man-months of expert services together with an equipment component at a total cost of US $300,000.